ODS 367

OBSTRUCTION DATA SHEET

ODS 367
MATHIS FIELD
SAN ANGELO, TEXAS

DIGITIZED FROM

OC 367
SURVEYED NOVEMBER 1988
11TH EDITION

PREPARED AND DISTRIBUTED BY
THE NATIONAL OCEAN SERVICE
U.S. DEPARTMENT OF COMMERCE
FOR THE FEDERAL AVIATION ADMINISTRATION

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OBSTRUCTION DATA SHEET

The Obstruction Data Sheet (ODS) provides digital obstruction and runway data for use in aircraft arrival and departure planning. This information has been obtained using field survey and photogrammetric methods by the Photogrammetry Branch of the National Ocean Service in accordance with Federal Aviation Regulations Part 77 (FAR-77), "Objects Affecting Navigable Airspace" and FAA Nr. 405, "Specifications - Airport Obstruction Chart and Related Products."

The ODS is a derivative of the Airport Obstruction Chart (OC). The source OC is indicated on the ODS cover. All objects, both obstructing and nonobstructing, that carry an elevation on the OC are listed in the ODS. The ODS (and OC) depict a representation of objects that existed at the time of the OC field survey.

ODS information is arranged as follows:

1. Objects located in FAR-77 approach (including supplemental approaches if present) or primary areas are listed with the associated runway (reference runway). For example, all objects in the Runway 9R approach or primary are listed with Runway 9R. Distances to these objects are computed from both the physical end and threshold of Runway 9R. Objects in the Runway 27L approach or primary are listed with Runway 27L. (Objects in the common 9R/27L primary area are listed with both runways.)

2. All objects not included in "1" above are listed with the Airport Reference Point (ARP).

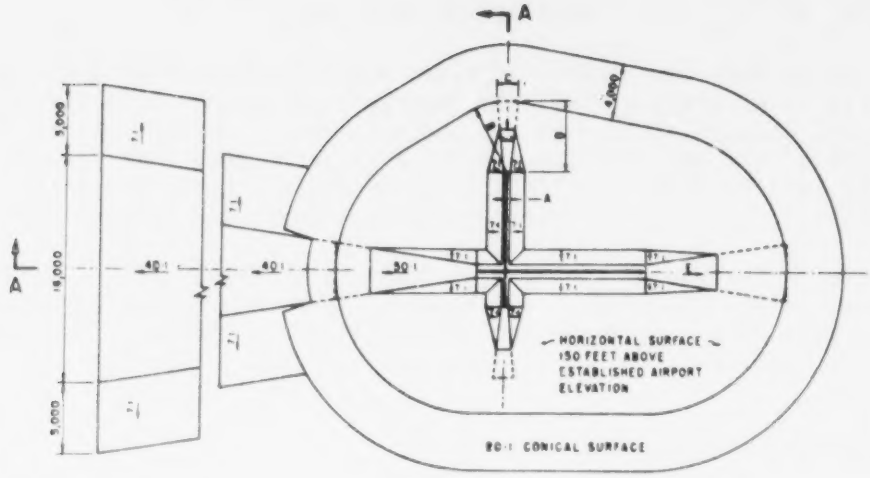
3. Runway configuration and runway lengths, widths, and elevations are presented on the ODS last page.

The FAR-77 imaginary approach surfaces for which the obstruction surveys were performed are coded in the ODS as follows (see footnote 2 on page 3):

A(V) ..... Utility runway - visual approach only
A(NP) .... Utility runway - nonprecision instrument approach
B(V) ..... Nonutility runway - visual approach only
C ..... Nonutility runway - nonprecision instrument approach with visibility minimums greater than 3/4 mile
D ..... Nonutility runway - nonprecision instrument approach with visibility minimums as low as 3/4 mile
PIR ..... Precision instrument runway
SUPLC ... Supplemental C underlying a B(V)

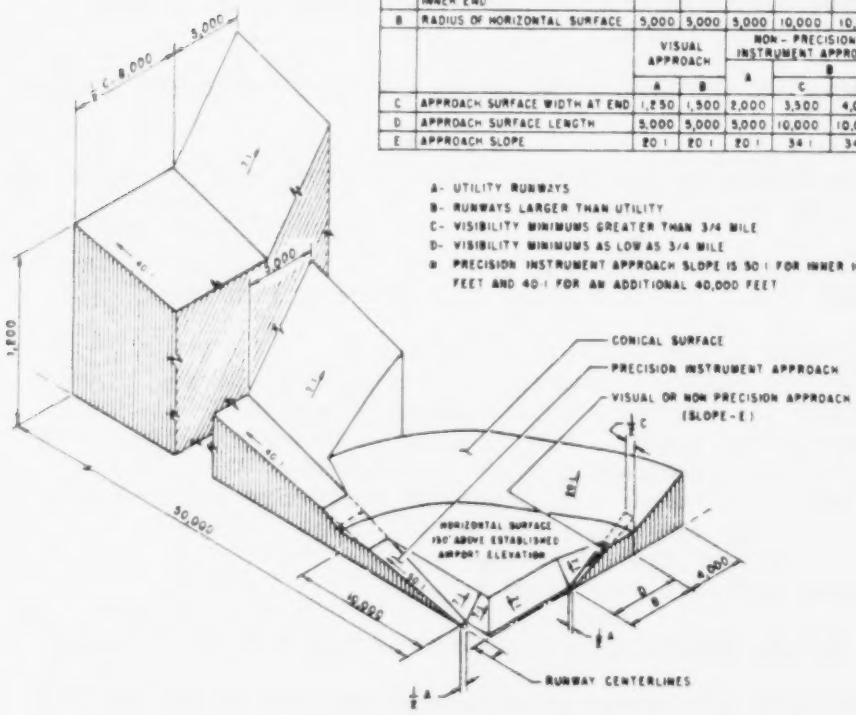
FAR-77 imaginary surface dimensions are defined on page 2 of this report.

Primary surface width is determined by the widest approach at the two approach/primary interfaces for that runway.



DIM	ITEM	DIMENSIONAL STANDARDS (FEET)					
		VISUAL RUNWAY		NON-PRECISION INSTRUMENT RUNWAY			PRECISION INSTRUMENT RUNWAY
		A	B	A	B		
					C	D	
A	WIDTH OF PRIMARY SURFACE AND APPROACH SURFACE WIDTH AT INNER END	250	500	500	500	1,000	1,000
B	RADIUS OF HORIZONTAL SURFACE	5,000	5,000	5,000	10,000	10,000	10,000
		VISUAL APPROACH		NON-PRECISION INSTRUMENT APPROACH			PRECISION INSTRUMENT APPROACH
		A	B	A	B		
					C	D	
C	APPROACH SURFACE WIDTH AT END	1,250	1,500	2,000	3,500	4,000	16,000
D	APPROACH SURFACE LENGTH	5,000	5,000	5,000	10,000	10,000	*
E	APPROACH SLOPE	20:1	20:1	20:1	34:1	34:1	*

A- UTILITY RUNWAYS
B- RUNWAYS LARGER THAN UTILITY
C- VISIBILITY MINIMUMS GREATER THAN 3/4 MILE
D- VISIBILITY MINIMUMS AS LOW AS 3/4 MILE
* PRECISION INSTRUMENT APPROACH SLOPE IS 50:1 FOR INNER 10,000 FEET AND 40:1 FOR AN ADDITIONAL 40,000 FEET



ISOMETRIC VIEW OF SECTION A-A

FAR-77 CIVIL AIRPORT
IMAGINARY SURFACES

ANNOTATION OF ODS DATA FORMAT

OC XXXX

AIRPORT ELEVATION XXXX

X[1] X[2] XXXX/XXXX[3] XXXXXX.XXX[4] XXXXXXX.XXX[4] XXXXXXX[5] XXXX/XXXX[6] XXXXXX.XXX[7] XXXXXXX.XXX[7]

OBJECT	LAT	LONG	A[8]	ELEV[9]	AGL[10]	HAR[11]	HAT[11]	HAA[11]	DEND[12]	DTHR[12]	DCLN[12]	PNTR[13]
XXXXXXXXXXX	XXXXXX.XXX	XXXXXXX.XXX	XX	XXXX	XXXX	XXX	XXX	XXX	XXXXX	XXXXX	XXXX	XXXX
XXXXXXXXXXX	XXXXXX.XXX	XXXXXXX.XXX	XX	XXXX	XXXX	XXX	XXX	XXX	XXXXX	XXXXX	XXXX	XXXX

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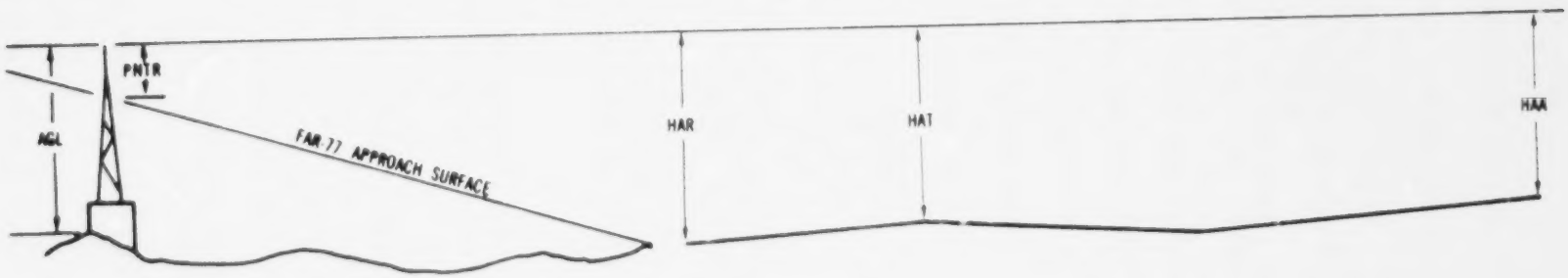
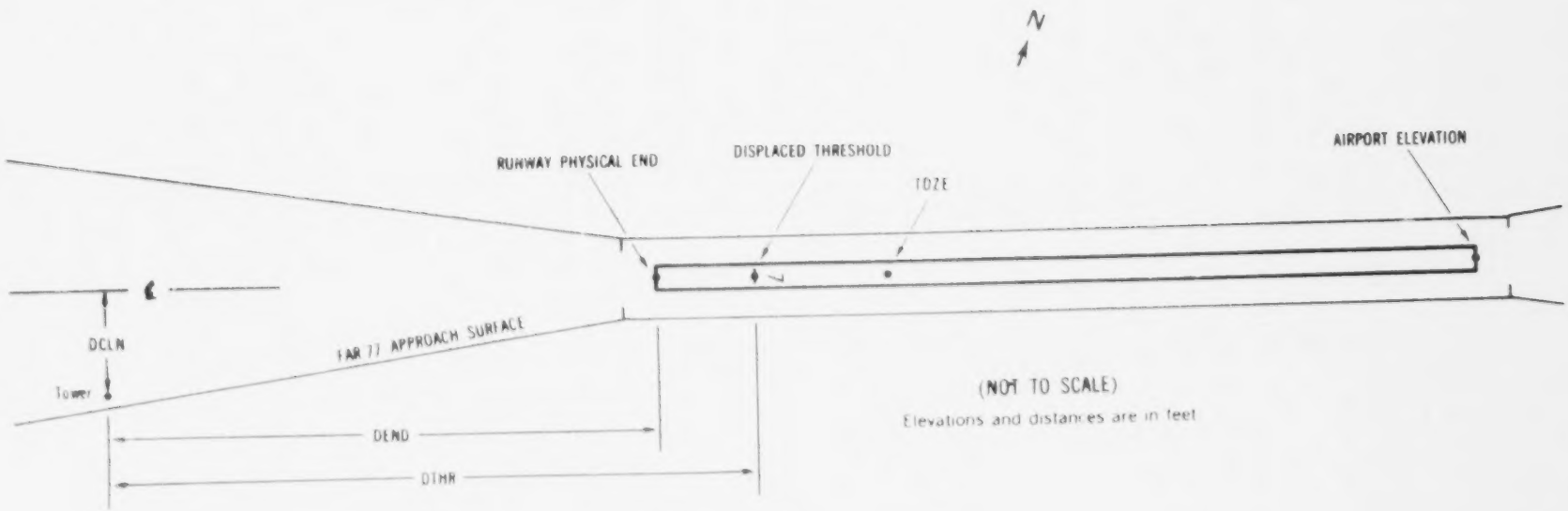




(NOT TO SCALE)

Elevations and distances are in feet

EXPLANATION OF FOOTNOTES

[1] Data block identifier. If a runway number is entered (reference runway), this data block will contain data pertinent to the reference runway and to objects in the FAR-77 approach and primary area of the reference runway. If ARP is entered, this data block will contain the ARP position and data relative to all objects not in an FAR-77 approach or primary area.

[2] For the reference runway, the lowest FAR-77 approach surface for which an obstruction survey was performed. (More than one surface may be surveyed.)

[3] Reference runway approach physical end elevation/touchdown zone elevation

[4] Latitude and longitude of reference runway approach physical end

[5] Reference runway geodetic azimuth reckoned clockwise from south

[6] Reference runway displaced threshold elevation/touchdown zone elevation

[7] Latitude and longitude of reference runway displaced threshold

[8] Accuracy Code:

Horizontal	Vertical
1 = 20	A = 2
2 = 40	B = 5
	C = 20

[9] Mean Sea Level (MSL) elevation at top of object. This value includes 15 feet added to noninterstate roads, 17 feet added to interstate roads, and 23 feet added to railroad tracks.

[10] Height above ground level (AGL). AGLs are provided only for those objects appearing on the OC that are equal to, or greater than, 200 feet AGL. AGL accuracy is ±10 feet.

[11] HAA - Height above airport
HAR - Height above reference runway approach physical end
HAT - Height above reference runway touchdown zone elevation

[12] DEND - Distance along reference runway centerline from point perpendicular to object to reference runway approach physical end
DTHR - Distance along reference runway centerline from point perpendicular to object to reference runway threshold
DCLN - Distance left (L) or right (R) of reference runway centerline as observed facing forward in a landing aircraft.

A negative value for DEND or DTHR indicates object is in primary area on roll-out side of zero distance point.

[13] PNTR - Penetration of indicated FAR-77 approach or primary surface (see footnote 2).

OC0367

AIRPORT ELEVATION 1916

3 PIR 1916/1916 312058.312N 1002958.173W 2230919

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
FENCE	312139.03	1002905.83	1A	1893		-23	-23	-23	-6106		497R	1
FENCE	312136.59	1002908.48	1A	1898		-18	-18	-18	-5769		497R	5
ROD ON OL ANEMOMETER	312102.85	1002945.32	1A	1948		32	32	32	-1097		499R	34
ROD ON OL TRANMISSOMETER	312103.01	1002945.96	1A	1930		14	14	14	-1071		448R	16
ROD ON OL GLIDE SLOPE	312102.83	1002946.92	1A	1949		33	33	33	-1001		400R	35
FENCE	312053.25	1002955.76	1A	1920		4	4	4	230		502R	3
ROAD (N)	312055.68	1003010.82	1A	1930		14	14	14	944		618L	-1
ROAD (N)	312046.64	1003010.90	1A	1933		17	17	17	1616		2R	-11
TREE	312042.64	1003010.29	1A	1951		35	35	35	1874		316R	2
POLE	312029.99	1003044.41	1A	2008		92	92	92	4830		968L	-1
POLE	312027.00	1003049.98	1A	2019		103	103	103	5381		1114L	-1
POLE	312006.42	1003034.36	1A	2026		110	110	110	5972		1297R	-5

21 D 1892/1906 312141.187N 1002911.327W 0430943

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
ROD ON OL GLIDE SLOPE	312102.83	1002946.92	1A	1949		57	43	33	-4938		400L	35
ROD ON OL TRANMISSOMETER	312103.01	1002945.96	1A	1930		38	24	14	-4868		448L	16
ROD ON OL ANEMOMETER	312102.85	1002945.32	1A	1948		56	42	32	-4842		499L	34
FENCE	312136.59	1002908.48	1A	1898		6	-8	-18	-170		497L	5
FENCE	312139.03	1002905.83	1A	1893		1	-13	-23	167		497L	1
OL ON LOCALIZER	312148.41	1002903.43	1A	1890		-2	-16	-26	1000		0R	-26
OL DME	312150.56	1002905.91	1A	1902		10	-4	-14	1012		306R	-14
POLE	312154.64	1002906.99	1A	1905		13	-1	-11	1249		656R	-18
POLE	312146.79	1002857.22	1A	1904		12	-2	-12	1250		505L	-19

OC0367

AIRPORT ELEVATION 1916

9 A(V) 1902/1905 312139.853N 10030 6.060W 2772904

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
ROAD (N)	312140.60	1003012.09	1A	1915		13	10	-1	529		7L	-3
TREE	312138.99	1003012.49	1A	1927		25	22	11	542		159R	8
TREE	312140.17	1003015.20	1A	1921		19	16	5	790		72R	-11

27 A(V) 1898/1904 312134.177N 1002915.740W 0972931

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
FENCE	312135.14	1002908.49	1A	1900		2	-4	-16	610		178R	-19
FENCE	312133.36	1002908.50	1A	1903		5	-1	-13	633		0L	-17

36 C 1916/1916 312059.038N 1002959.854W 1871830

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
ROAD (N)	312209.53	1002954.54	1A	1905		-11	-11	-11	-7124		449L	9
FENCE	312053.25	1002955.76	1A	1920		4	4	4	535		426R	-6
TREE	312048.83	1002955.04	1A	1944		28	28	28	970		545R	5
TREE	312048.27	1002957.28	1A	1939		23	23	23	1051		360R	-2
TREE	312042.64	1003010.29	1A	1951		35	35	35	1758		687L	-11

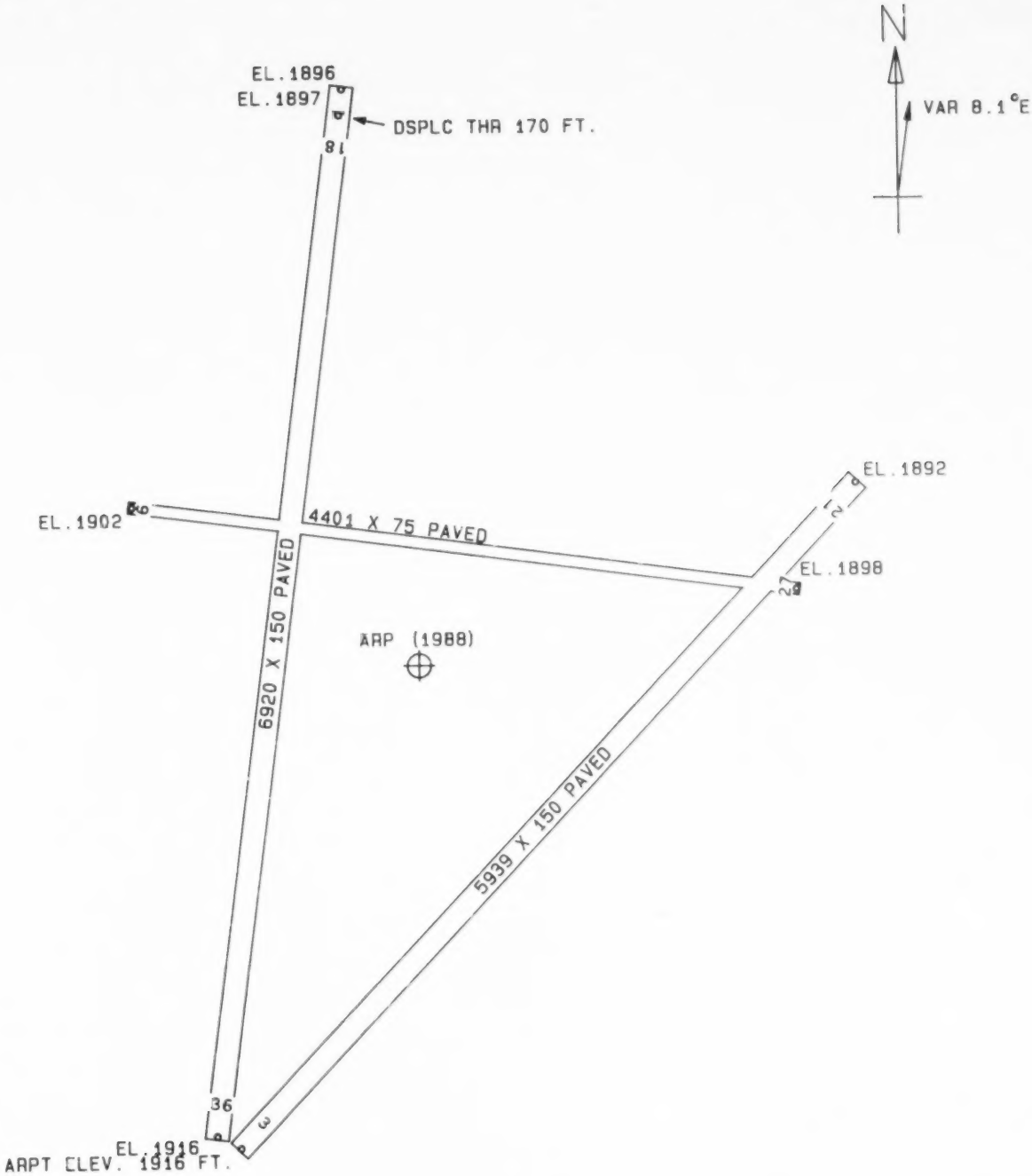
AIRPORT ELEVATION 1916

18 PIR 1896/ 312206.963N 1002949.702W 0071836 1897/1906 312205.296N 1002949.951W

OBJECT	LAT	LONG	A	ELEV	AGL	HAR	HAT	HAA	DEND	DTHR	DCLN	PNTR
ROAD (N)	312209.53	1002954.54	1A	1905		9	-1	-11	204	374	449R	9
ROAD (N)	312213.00	1002948.71	1A	1903		7	-3	-13	616	785	8L	-1
ANTENNA	312222.54	1002944.10	1A	1921		25	15	5	1623	1792	282L	-3

ARP 312129.465N 1002944.348W

OBJECT	LAT	LONG	A	ELEV	AGL	HAA	MAG BEARING	DISTANCE
ANT AND APBN ON CONTROL T	312127.32	1003009.13	1A	2004		88	256 8	2160
ROD ON OL DOME	312121.87	1003010.25	1A	1989		73	243 2	2374
TREE	312137.89	1003012.00	1A	1924		8	281 27	2545
TREE	312142.81	1003011.90	1A	1930		14	291 20	2743
POLE	312145.78	1002919.04	1A	1920		4	44 59	2745
ANTENNA ON OL WATER TANK	312127.65	1003018.16	1A	2039		123	258 20	2937
FLOODLIGHT ON HANGAR	312109.77	1003011.70	1A	1954		38	221 54	3096
ROD ON OL TRANMISSOMETER	312058.70	1002948.49	1A	1930		14	178 29	3129
CHIMNEY ON HANGAR	312103.28	1003015.48	1A	1954		38	217 29	3780
HANGAR	312057.99	1003010.76	1A	1934		18	207 40	3919
POLE	312156.30	1002909.06	1A	1916		0	40 21	4088
POLE	312208.99	1002956.90	1A	1920		4	336 39	4140
POLE	312218.11	1002940.18	1A	1913		-3	356 6	4928



TOUCHDOWN ZONE RUNWAY	ELEVATION
3	1916
21	1906
9	1905
27	1904
36	1916
18	1906

MATHIS FIELD

SAN ANGELO, TEXAS

(NOT TO SCALE)